

Amendments to the Specification

Please replace the paragraph beginning at page 1, line 4, with the following rewritten paragraph:

The following co-pending U.S. patent applications relate to the present application and are hereby incorporated herein by reference: 1) U.S. Patent Application Serial No. ~~aa/bbb,eee~~ 10/622,378, entitled, "Advanced Bi-Directional Predictive Coding of Video Frames," filed concurrently herewith; 2) U.S. Patent Application Serial No. ~~aa/bbb,eee~~ 10/622,284, entitled, "Intraframe and Interframe Interlace Coding and Decoding," filed concurrently herewith; 3) U.S. Patent Application Serial No. 10/321,415, entitled, "Skip Macroblock Coding," filed December 16, 2002; and 4) U.S. Patent Application Serial No. 10/379,615, entitled "Chrominance Motion Vector Rounding," filed March 4, 2003.

Please replace the paragraph beginning at page 17, line 15, with the following rewritten paragraph:

If the current frame 805 is a forward-predicted frame, a motion estimator 810 estimates motion of macroblocks or other sets of pixels of the current frame 805 with respect to a reference frame, which is the reconstructed previous frame 825 buffered in a frame store (e.g., frame store 820). If the current frame 805 is a bi-directionally-predicted frame (a B-frame), a motion estimator 810 estimates motion in the current frame 805 with respect to two reconstructed reference frames. Typically, a motion estimator estimates motion in a B-frame with respect to a temporally previous reference frame and a temporally future reference frame. Accordingly, the encoder system 800 can comprise separate stores 820 and 822 for backward and forward reference frames. For more information on bi-directionally predicted frames, see U.S. Patent Application Serial No. ~~aa/bbb,eee~~ 10/622,378, entitled, "Advanced Bi-Directional Predictive Coding of Video Frames," filed concurrently herewith.

Please replace the paragraph beginning at page 22, line 20, with the following rewritten paragraph:

The described techniques and tools improve compression efficiency for predicted images (e.g., frames) in video sequences. Described techniques and tools apply to a one-motion-vector-per-macroblock (1MV) model of motion estimation and compensation for predicted frames (e.g., P-frames). Described techniques and tools also employ specialized mechanisms to encode motion vectors in certain situations (e.g., four-motion-vectors-per-macroblock (4MV) models, mixed 1MV and 4MV models, B-frames, and interlace coding) that give rise to data structures that are not homogeneous with the 1MV model. For more information on interlace video, see U.S. Patent Application Serial No. ~~aa/bbb,eee~~ 10/622,284, entitled, "Intraframe and Interframe Interlace Coding and Decoding," filed concurrently herewith. Described techniques and tools are also extensible to future formats.